

Module Handbook

Module Name:	Basic Physic I (Practical)
Module Level:	Bachelor
Abbreviation, if applicable:	FID102
Sub-heading, if applicable:	-
Courses included in the module, if applicable:	-
Semester/term:	2 nd / First year
Module coordinator(s):	Supadi, S.Si, M.Si
Lecturer(s):	Lecturers Team
Language:	Bahasa Indonesia
Classification within the curriculum	Compulsory Course
Teaching format / class hours per week during semester:	2 hours laboratory work(50 min / hours)
Workload:	2 hours doing worksheet and pretest preparation, 2 hours laboratory work, 2 hours group discussion, searching literature and writing report, 13 week per semester, and total 78 hours per semester ~ 2.6 ECTS *
Credit Points:	1
Requirements:	-
Learning goals/competencies:	<p>General Competence (Skill): To demonstrate an ability to conduct experiment in physics (mechanics).</p> <p>Specific Competence:</p> <ol style="list-style-type: none"> 1. Ability to plan and prepare practical laboratory investigations on density of solids and liquid, surface tension and viscosity. 2. Ability to plan and prepare practical laboratory investigations on sound wave, energy & momentum and string constant. 3. Ability to plan and prepare practical laboratory investigations on specific heat & linear expansion coefficient 4. Ability to plan and prepare practical laboratory investigations on gravitation, Young Modulus and torsion modulus
Content:	Density of solids and liquid, surface tension and viscosity, sound wave, energy & momentum, string constant, specific heat, linear expansion coefficient, gravitation, Young modulus and torsion modulus.
Attribute soft skill	Discipline and teamwork
Study/exam achievements:	<p>Students are considered to be competent and pass if at least get 55</p> <p>Final score is calculated as follows: Final practical work exam 35 % ;SoftSkill 10 %;report30 % ; pre-test 25%</p> <p>Final index graduation A : 100>NA≥75</p>

	AB: 74,9> NA≥70 B : 69,9> NA≥65 BC : 64,9> NA≥60 C : 59,9>NA≥55 D : 54,9>NA≥40 E : 39,9≥NA
Learning Method	- Practicum in laboratory - Discussion
Forms of Media:	Laboratory equipment, White board
Literature:	1. Petunjuk Praktikum Fisika Dasar I, Departemen Fisika, FST Universitas Airlangga, 2015. 2. Alonso and Finn, <i>Fundamental University Physics, Vol. 1</i> , Addison Wesley, 1992, 3. Tipler, P.A., Mosca G. <i>Physics for scientists and engineers</i> (5ed., extended version) 4. Halliday, D., Resnick, R., and Walker, J., <i>Principle of Physics</i> , 9 th edition (extended), John Wiley & Sons, 2011 5. Jewet, J.W. and Serway, R. A., 2006, <i>Serway's Principles of Physics, A Calculus Based Text</i> , 4 th Edition, Thomson & Brooks/Cole, Australia
Notes:	*Total ECTS = {(total hours workload x 50 min) / 60 min } / 25 hours Each ECTS is equals with 25 hours